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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/068,860 | 02/11/2002 | Tadashi Katafuchi | 218249US0DIV | 2638 |
| 22850 | 7590 | 11/19/2003 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | JOHNSON, JERRY D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1764 | |

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/068,860 | KATAFUCHI ET AL. | |
| | Examiner | Art Unit | |
| | Jerry D. Johnson | 1764 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,7 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6,7 and 10-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 6, 7 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zoleski et al.

Zoleski et al., U.S. Patent 4,375,418, teach a lubricating oil composition for use in medium and high speed marine diesel engine crankcases which has a Total Base Number from about 5 to 40 and contains a mineral lubricating oil, about 0.1-5, preferably about 0.5-2.0, weight percent of an overbased calcium sulfonate, 0.1-7 weight percent of an overbased sulfurized calcium phenate, a zinc dihydrocarbyl dithiophosphate, an alkenylsuccinimide and a friction reducing amount of at least one acyl glycine oxazoline derivative (abstract; column 2, line 64 to column 3, line 11; column 4, lines 60-65). The composition comprises from about 0.5 to 10 weight percent of a nitrogen-containing succinimide dispersant as disclosed in column 2, lines 49-63. When the variable x is zero, as specifically disclosed in column 2, line 23, the alkenylsuccinimide is the product of diethylene triamine and succinic acid compound in a molar ratio of 1. While Zoleski et al. differ from the instant claims in not being limited to the compositions of the instantly claimed method, it would have been obvious to one having ordinary skill in the art at the time the invention was made to follow the above teachings and arrive at the instantly method.

Claims 6, 7 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zoleski et al. as applied to claims 6, 7 and 10-15 above, and further in view of Le Suer et al. and EP 0 839 894 A1.

Le Suer et al., U.S. Patent 3,172,892, teach a process for the preparation of alkenylsuccinimide dispersants of the instant claims (e.g., Example 1 of Le Suer et al.). In column 4, lines 19-22, Zoleski et al. teach the use of those dispersants.

EP 0 839 894 A1 (EP '894) teaches lube oil compositions for diesel engines, and more particularly to lube oil compositions suitable for use as cylinder oils for two-cycle marine engines (page 2, lines 7-8) comprising (A) at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, over based phenates of alkaline earth metals, and salicylates of over based alkaline earth metals and (B) a bis-type succinic imide (page 2, lines 47-52). Compound (A) may be used singly or in combination. It is preferably incorporated in an amount of 5-40% by weight (page 5, lines 17-18). The total acid number of the compositions is preferably adjusted to fall within the range from 30 to 150 mgKOH/g, preferably 40 to 100 mgKOH/g. Total acid number of less than 30 mgKOH/g may fail to neutralize acids perfectly, whereas total acid number of higher than 150 mgKOH/g may increase the ash content in the lube oil, raising the risk of producing great amounts of deposit during long-term use (page 6, lines 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the alkenylsuccinimide dispersants of Le Suer et al. in a lubricating oil composition for use in medium and high speed marine diesel engine crankcases as taught by Zoleski et al. because Zoleski et al. specifically teach that those dispersants may be used. Additionally, it would have been obvious to include at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, over based phenates of alkaline

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earth metals, and salicylates of over based alkaline earth metals in an amount of 5-40% by weight as taught by EP '894 in order to "perfectly" neutralize acids.

Claims 6, 7 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vinci et al. in view of Zoleski et al.

Vinci et al., U.S. Patent 5,334,329, teach lubricating oils comprising ashless dispersants (column 1, lines 5-15). In EXAMPLES B-1 and B-2, ashless dispersants which comprise the reaction products of polyisobutenyl succinic anhydride with diethylene triamine or ethylene diamine are disclosed. The lubricating compositions include crankcase lubricating oils for, *inter alias*, marine diesel engines (column 32, lines 18-23).

While Vinci et al. teach marine diesel lubricants and the addition of other additives (column 28, lines 11-22), Vinci et al. differ from the instant claims in not disclosing the addition of overbased additives.

EP 0 839 894 A1 (EP '894) teaches lube oil compositions for diesel engines, and more particularly to lube oil compositions suitable for use as cylinder oils for two-cycle marine engines (page 2, lines 7-8) comprising (A) at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, over based phenates of alkaline earth metals, and salicylates of over based alkaline earth metals and (B) a bis-type succinic imide (page 2, lines 47-52). Compound (A) may be used singly or in combination. It is preferably incorporated in an amount of 5-40% by weight (page 5, lines 17-18). The total acid number of the compositions is preferably adjusted to fall within the range from 30 to 150 mgKOH/g, preferably 40 to 100 mgKOH/g. Total acid number of less than 30 mgKOH/g may fail to neutralize acids perfectly, whereas total acid number of higher than 150 mgKOH/g may increase

the ash content in the lube oil, raising the risk of producing great amounts of deposit during long-term use (page 6, lines 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made include at least one compound selected from the group consisting of overbased sulfonates of alkaline earth metals, over based phenates of alkaline earth metals, and salicylates of over based alkaline earth metals in an amount of 5-40% by weight as taught by EP '894 in order to "perfectly" neutralize acids in a marine diesel lubricating oil composition as taught by Vinci et al.

Applicant's arguments filed August 19, 2003, to the extent they are applicable to the instant grounds of rejection, have been fully considered but they are not persuasive.

Applicants argue the preferred alkenyl succinimide embodiments of Zoleski et al. are outside the terms of the present claims and the comparative data in the specification demonstrates the importance of the carbon/nitrogen weight ratio maximum of 1.25.

Under 35 U.S.C. 103, prior art references are to be considered for all subject matter fairly disclosed either alone or together for what they teach the worker of ordinary skill in the art. *In re Metcalf*, 294 F.2d 558, 157 USPQ 423. Accordingly, Zoleski et al. is not limited to specific examples or preferred teachings of the disclosure.

To the extent that applicants argue the comparative data in the specification show unexpected results, the burden of proving unexpected results rests on the party which asserts them. In proving such results, it is not enough just to show that certain results are obtained. The results to be probative of nonobviousness must be shown to have been unexpected to the skilled worker in the art. *In re D'Ancicco*, 439 F.2d 1244, 169 USPQ 303 (CCPA 1971); *In re Klosak*,

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455 F.2d 1077, 173 USPQ 14 (CCPA 1972); *In re Juillard*, 476 F.2d 1380, 177 USPQ 1570 (CCPA 1973). Moreover, it is axiomatic that evidence presented to rebut a prima facie case of obviousness must be commensurate in scope with the claims the evidence is offered to support. *In re Tiffin*, 448 F.2d 791, 171 USPQ 294 (CCPA 1971).

The comparative data of the specification is not commensurate in scope with the claims, e.g., the examples of the invention are limited to a molar ratio of 1.0, the polyamine is limited to diethylene-triamine, ethylene diamine and a mixture of diethylene-triamine with triethylene-tetramine, specific over based additives and specific concentrations of additives while the claims are not so limited.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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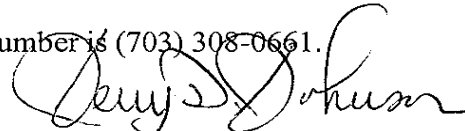
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry D. Johnson whose telephone number is (703) 308-2515. The examiner can normally be reached on 6:00-3:30, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Caldarola can be reached on (703) 308-6824. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jerry D. Johnson
Primary Examiner
Art Unit 1764

JDJ